

Abstract

**APPARATUS AND METHOD FOR CURING
MATERIALS WITH RADIATION**

5 A hand held dental instrument for curing light-curable compounds
comprises a housing and an array of solid state, light emitting junctions or dies
for generating light having wavelengths within a narrow band of wavelengths
(e.g. 400-500 nm). Preferably, a peak wavelength of 470 nm is generated. The
device further comprises an optical fiber light pipe for capturing the light and
transmitting a beam of the light to a work surface containing a light-curable
10 compound. An optical lens or lenses may be used for focusing the light into the
light pipe.